ABSTRACT

Maintaining proper water quality in aquarium management is very important for the health of fish and other aquatic organisms ronment. Oxidation reduction potential (ORP) can be used as a parameter to monitor water quality and identify changes affecting the health of fish and the aquarium ecosystem. The Oxidation Reduction Potential (ORP) value in an aquarium can be said to be healthy if the waters have a value of 300 and 500 mV (millVolt). So it is necessary to replace the water in the aquarium which aims to maintain the quality of fish in the aquarium and can help optimize aquarium conditions and prevent redox reactions that are harmful to fish. In this study the accuracy of the Oxidation Reduction Potential (ORP) sensor in the test was good by obtaining an average sensor accuracy of 97.56%. In this study it has been well validated. With a well-designed Oxidation Reduction Potential (ORP) measurement device, it can help make decisions about replacing water in the aquarium. From this study, it was found that Quality of Service with delay testing obtained results of 4,39 second. The resulting delay varies and is erratic according to the quality of the network because the network used uses hotspots and the narrow environment has walls which cause the network to be unstable.

Keywords: *Aquarium, Microcontroler, Antares platform, Oxidation Reduction Potential*